

CLAIMS

What is claimed is:

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1. An access architecture for real-time communications comprising:
an inter-architecture network utilizing a single protocol;
a plurality of border elements, each of said border elements in communication
with said inter-architecture network and each of said border elements in communication
10 with an external network; and
a plurality of call control elements, each of said call control elements in
communication with said inter-architecture network.

2. The architecture of claim 1 further comprising a plurality of media servers, each
15 of said media servers in communication with said inter-architecture network.

3. The architecture of claim 1 further comprising a network function element in
communication with said inter-architecture network.

20 4. The architecture of claim 1 further comprising a Communications Assistance for
Law Enforcement (CALEA) server in communication with said inter-architecture
network.

5. The architecture of claim 1 further comprising an Emergency 911 (E911) server in
25 communication with said inter-architecture network.

6. The architecture of claim 1 further comprising an Application Server (AS) in
communication with at least one of said call control elements.

30 7. The architecture of claim 6 further comprising a Network Resource in
communication with said AS.

8. The architecture of claim 1 further comprising a Peer Network Border Element in communication with said inter-architecture network.

9. The architecture of claim 3 wherein said network function element includes at least one of a Call Admission Control (CAC) element, a Network Routing Engine, a User Profile Engine and a Service Broker.

10. The architecture of claim 1 wherein said external network comprises a network technology selected from the group comprising Internet Protocol (IP), Ethernet, Time Division Multiplexing (TDM), Frame Relay (FR) and Asynchronous Transfer Mode (ATM).

11. The architecture of claim 1 wherein said external network comprises a network utilizing a protocol selected from the group comprising Session Initiated Protocol (SIP), ISDN User Part (ISUP) and H.323.

12. The architecture of claim 1 wherein said single protocol comprises SIP.

13. A method of placing a call using an access architecture for real-time communications comprising:

connecting a caller's phone to a first BE;

communicating a request for a destination phone number from said first BE to a CCE;

communicating between said CCE and a second BE connected to a destination phone;

establishing a call between said caller's phone and said destination phone;

receiving a hangup message from said destination phone;

communicating a hangup message to said first BE; and

disconnecting said caller's phone from said first BE.

14. The method of claim 13 wherein said caller's phone is connected to a first BE using an access-specific technology selected from the group comprising IP, Ethernet, TDM, FR, ATM.

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15. The method of claim 13 wherein said caller's phone is connected to a first BE using an access-specific protocol selected from the group comprising SIP, H.323, and ISUP.

10 16. The method of claim 13 wherein said communicating a request for a destination phone number comprises sending an INVITE command to the CCE.

17. The method of claim 13 wherein said communicating between said CCE and a second BE comprises sending an INVITE command to said second BE.

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18. The method of claim 13 wherein said establishing a call between said caller's phone and said destination phone comprises establishing communications between said caller's phone and a first BE, establishing communications between said first BE and said CCE, establishing communications between said CCE and said second BE, and
20 establishing communications between said second BE and said destination phone.

19. The method of claim 13 wherein said receiving a hangup message from said destination phone comprises sending a BYE command from said second BE to said CCE.

25 20. The method of claim 13 wherein said communicating a hangup message to said first BE comprises sending a BYE command from said CCE to said first BE.